

**IN THE UNITED STATES DISTRICT COURT FOR THE  
SOUTHERN DISTRICT OF TEXAS  
HOUSTON DIVISION**

MARK ARMSTRONG AND  
ERIKA ARMSTRONG,

Plaintiffs,

v.

WING ENTERPRISES, INC.,

Defendant.

**CIVIL ACTION NO. 4:18-cv-01238**

**MOTION TO COMPEL NET WORTH  
DISCOVERY**

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**MEMORANDUM OF POINTS AND AUTHORITIES IN SUPPORT OF PLAINTIFFS’  
MOTION IN SUPPORT OF AN ORDER TO COMPEL NET WORTH DISCOVERY**

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Plaintiffs Mark Armstrong (“Armstrong”) and Erica Armstrong (collectively “Plaintiffs”) file this Motion to in Support of an Order to Compel Net Worth Discovery from Defendant Wing Enterprises, Inc. (“Wing” or “Defendant”), and respectfully show the Court as follows:

**A. INTRODUCTION**

1. This is a product liability case in which Plaintiffs allege Armstrong suffered serious injuries when he fell from a defective extension ladder designed, manufactured and sold by Wing. Plaintiffs allege both design and manufacturing defects, both of which are supported by evidence and expert witness testimony. Through this motion, Plaintiffs seek an order compelling net worth discovery from Wing based on a showing of gross negligence. The evidence obtained through discovery shows that Wing was grossly negligent in allowing the incorporation of defective component parts into the locking system of the subject ladder. The evidence shows that the locking assemblies on Wing’s ladders incorporated component parts that did not meet the specifications required by the technical drawings and are not within required

tolerances and that these defects caused or contributed to the failure of the ladder of Plaintiffs injuries. The evidence shows that Wing knew of the dangers of incorporating into its ladders critical components that would likely cause severe injury to users. The evidence reveals that Wing lacks an effective quality control system and failed to insure the critical components of its ladder locking systems met the manufacturing specifications. In addition, the evidence shows that Wing failed to make reasonable design changes to its lock assemblies to avoid the dangerous condition that injured Plaintiffs. Plaintiffs submit that the evidence will support a finding of gross negligence and on that basis Plaintiffs should be allowed to conduct discovery into Wing's net worth.

## **B. STATEMENT OF FACTS AND EVIDENCE**

2. This suit arises from an incident occurring on or about May 2, 2016, at 129 Harbor Town Circle, Montgomery, Texas 77356. On or about that date, Armstrong was using a product known as a Little Giant-Alta One Ladder, serial number 11042s (the "Ladder"). (Doc. 1 at ¶ 9.)

3. The Ladder was designed, manufactured, and promoted by Defendant Wing. Defendant was engaged in the business of manufacturing, compounding, packaging, labeling, designing, distributing, testing, inspecting, constructing, fabricating, analyzing, recommending, merchandising, advertising, promoting, displaying, maintaining, repairing, and selling to members of the general public, including Plaintiff Armstrong, products such as the Ladder. At all times material hereto, Defendant advertised and promoted the Ladder as a multi-use ladder system made up of three components: one inner ladder assembly and two outer ladder assemblies that telescope over the inner section. The inner and outer ladder assemblies work together with hinge locks and Lock Tabs to adjust the ladder into different lengths and positions, including

operating as an extension ladder. (Doc. 1 at ¶ 7.)

4. On or about May 2, 2016, Plaintiff Armstrong was using the Ladder as an extension ladder while inspecting a house at 129 Harbour Circle in Montgomery, Texas. In order to access the roof above the driveway as part of his inspection, Armstrong placed the Ladder against the house in front of the garage door at an angle, resting against the gutter. According to witness testimony, the top of the Ladder extended above the level of the gutter. According to witness testimony, Armstrong was first seen on the Ladder, with his feet on the Ladder and his hands gripping it. His body was situated between the rails. According to witnesses, immediately prior to his fall, Armstrong was “at the top of the ladder” and “definitely above the middle of the ladder.” Plaintiffs allege that the upper section of the ladder telescoped due to defective locking mechanics, causing Armstrong to fall backward away from the house with first his feet and back, and then his head, striking the driveway surface. According to witnesses, Armstrong landed on his back, and the Ladder fell on top of him. Armstrong recalls nothing about the fall or the events immediately preceding it. (Rule 26 Report of Plaintiffs’ Biomechanical Expert Peter R. Francis, Ph.D. (“Francis Report”) at pp. 2-3; Rule 26 Report of Plaintiff’s Engineering Expert Peter Poczynok (“Poczynok Report”) at pp. 2-3; Deposition of Susan Kronshage (“Susan Kronshage Depo.”) at 7:9-8:3; 12:2-7; 14:1-18:7; 18:12-19:12; 26:14-27:20; 37:1-9; 41:3-23; 44:18-45:4; Deposition of William Kronshage (“William Kronshage Depo.”) at 14:5-18; 17:3-18:17; 19:18-21:11; 36:20-37:4.).)<sup>1</sup>

5. On April 19, 2018 Plaintiffs filed their Complaint for Damages against Wing. The Complaint includes causes of action for Negligence, Strict Liability, Defect in Warnings/Instructions/Marketing Defect, Breach of Implied Warranty of Merchantability,

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<sup>1</sup> All of the evidence cited in this Motion is attached as Exhibits to the Declaration of Thomas F. Friedberg in Support of Motion to Compel Net Worth Discovery.

Breach of Implied Warranty of Fitness for Particular Purpose, Breach of Express Warranty, Texas Deceptive Trade Practices and Loss of Consortium. (Doc. 1.)

6. The parties have engaged in extensive discovery, including the production of documents and taking the depositions of Plaintiffs, percipient witnesses, representatives of Wing and the Plaintiffs' two designated liability experts. The parties have designated experts and exchanged Rule 26 Reports. The parties' experts have examined the Ladder that is the subject of this action. The experts have also conducted extensive testing using as exemplars Wing extension ladders of the same model as the Ladder to recreate the incident that caused Armstrong to fall and sustain serious injuries. (Poczynok Report at pp. 3-38.)

7. Plaintiffs' biomechanical expert, Francis ("Dr. Francis") and engineering expert, Peter Poczynok ("Poczynok"), have concluded based on the evidence and his testing of exemplars, that the causative event that resulted in Armstrong's fall from the Ladder was the telescoping of the upper extension of the Ladder when Armstrong placed his foot and body weight on the rung of the upper extension as he was ascending the Ladder. Francis concludes based on witness testimony, evidence and testing, that Armstrong mounted the ladder and began to climb the ladder using a three point climbing method with his body between the rails as he climbed. When Armstrong's foot reached rung nine, the upper section of the ladder telescoped one rung due to a false lock condition of the J-locks on the upper section of the Ladder. The telescoping caused Armstrong to lose his balance and fall backward while holding onto the Ladder with his hands. (Francis Report at pp. 12-15, 18; Deposition of Peter Poczynok ("Poczynok Depo.") 124:1-14; 82:5-84:14; 239:12-242:8; Poczynok Report at p. 23.)

8. Plaintiffs' biomechanical expert, Dr. Francis, has ruled out other potential causes of the fall. As explained in Dr. Francis' Rule 26 Report, eyewitness Susan Kronshage testified

that she saw the incident beginning when Armstrong was either at the top or, “definitely above the middle of the ladder.” She also indicated that the ladder did not slide out or fall to the side, and that Armstrong’s body was between the rails of the ladder during his fall. These observations appear to rule out misuse of the ladder by Armstrong. (Francis Report at p. 13.)

9. As discussed in Dr. Francis’ Rule 26 Report, Ladder falls can be due to the following avoidable conditions:

(a) Placing the feet of the ladder on uneven surfaces, which can result in falls to the side;

(b) Leaning the ladder at a flatter angle, less than the recommended 75 degrees above the horizontal, which can cause the feet to slide away from a wall;

(c) Leaning to the side in an effort to reach outside of the rails of the ladder, which can cause the ladder to fall to one side, while the user often falls in the opposite sideways direction; and

(d) Ignoring the three-point climbing recommendation of manufacturers, which can involve carrying something in one of the hands while using the ladder. (Francis Report at p. 13.)

10. Dr. Francis makes the following findings on each of the potential alternative causes of Armstrong’s fall from the Ladder:

(a) In support of the eyewitness testimony, photographs of the driveway in which the incident occurred appears to be relatively flat, and photographs of the ladder at its location of rest, together with descriptions of Plaintiff’s body on the ground are not consistent with the ladder falling sideways.

(b) It is highly unlikely that Armstrong, as an experienced user of his own ladder, would

misjudge the angle of his ladder and place it at significantly less than 75 degrees above the horizontal. In addition, if the base of the ladder slid away from the wall of the house, Armstrong would have come to rest with his head towards the house and his feet closest to the street. This is in contradiction to the photographs of the ladder and witness testimonies.

(c) The location of Armstrong's body and the ladder are not consistent with a sideways fall, which would have resulted in both Armstrong's body and the ladder being oriented PARALLEL with the front of the house. A sideways fall is also inconsistent with eyewitness testimony. Mrs. Kronshage testified that she saw Armstrong's body between the rails of the ladder during the fall.

(d) There were no indications that Armstrong was carrying anything in his hands at the time of the incident. In addition, a user ignoring the 3-point climbing rule typically misses a rung with either a hand or a foot. This can result in either the user sliding feet first down the front of the ladder, or one of the extremities passing between two adjacent rungs and falling to the ground while entangled with the ladder. This is inconsistent with the testimonies of the two eyewitnesses and paramedic Miracco. Mrs. Kronshage testified that, "his feet (plural) were on the ladder and his hands (plural) were gripping the ladder". (Francis Report at pp. 13-14.)

11. Plaintiff's experts have concluded that the telescoping of the upper extension of the Ladder that caused Armstrong's fall was caused by a "false lock" condition. False locking is a condition whereby the locking system of an extension ladder is partially, but not fully, engaged. It presents the appearance, both visually and tactilely, that the extension is completely locked to the base when in reality, complete locking has not been achieved. The extension sections slide along the rails of the base ladder and must be secured in place so that they do not move during use. Locking of each extension is achieved through the use of spring-loaded

locking pins in the form of a J (“J-lock”) that are inserted through openings in the rails of the extensions and then into holes in the rails of the ladder structure beneath. The holes in the extensions are oval shaped, while the holes in the base ladder rails are circular. When the pin is fully inserted through the extension rail hole and fully into the base rail hole, the lock is engaged. A spring attached to the J-lock pin urges the end of the J-lock inward toward the center of the ladder and through the holes. Insertion of the pin end of the J-lock through the extension hole and into the base hole requires alignment of those holes with one another as well as with the pin. If the pin is not aligned with the outer hole, its tip will rest on the side of the extension rail. If the J-lock pin is aligned with the extension rail hole but that hole is not aligned with the base rail hole, then the tip of the J-lock pin will pass through the extension rail but rest against the side of the base rail. This is a false lock condition. (Poczynok Report at pp. 38-39.)

12. Successful insertion of the J-lock pin through the extension rail and fully into the hole in the base rail is therefore dependent on a number of factors. The force imparted by the spring onto the J-lock pin must be sufficient to overcome the resistances created by friction between the surface of the pin and the inner surfaces of the extensions rail hole and the base rail hole. It must also be sufficient to overcome misalignments of the holes, and to hold the pin in place during use and movement of the ladder. (Poczynok Report at p. 39.)

13. The tip of the J-lock pin must exhibit a geometry that facilitates insertion of the pin into the holes. To do so, it must minimize the probability of the tip of the pin being restrained due to contact with the inside surface of the extension rail hole, the inner surface of the base rail hole, the edges of either hole or the circular ring created around the base rail hole by the swaging operation used to attached the rung to the rail during manufacture. When confronted with compressive forces created by the weight of the extension acting downward on the pin while it is

in contact with the lower edge of the base hole, the geometry of the pin tip in conjunction with the applied spring force must still be capable of achieving complete insertion. (Poczynok Report at p. 39.)

14. In tests performed on exemplar Little Giant Alta-One ladders by Plaintiffs' engineering expert, two modes of false locking were identified as occurring. The first involves insertion of the J-lock pin through the extension hole but coming into contact with the base rail just above and in contact with the swage ring around the base hole. In that condition, the tip of the pin is forced by the spring against the side of the base rail, and the pin rests on the ledge created by the swage ring. (Poczynok Report at p. 39.)

15. The second identified mode of false locking on the Little Giant Alta-One ladders also involves penetration of tip of the J-lock pin through the hole in the extension. However, in that case, the tip comes to rest against the edge of the swage ring at the bottom of the hole but on the top ledge of the ring. The force of the spring holds the tip of the J-lock pin against the upper edge of the swage ring, while the upper surface of the inside of the extension hole exerts a compressive force on the top of the pin. In both cases, the J-locks are partially, but not completely inserted. The testing by Plaintiffs' expert demonstrated that the false locks permit the placement and movement of the ladder with the extension remaining elevated. Only when a sufficiently large downward force is imparted to the upper extension is the false lock overcome and the extension descends. (Poczynok Report at p. 39.)

16. A critical factor influencing engagement of the J-locks is the force of the spring urging the J-lock pin into the intended openings in the extension rail and the base rail. Physical contact between the J-lock pin and other components of the ladder create forces that act in opposition to the spring force. Likewise, contact between the spring itself and its surrounding



environment also reduces the force applied by the spring to engage the J-lock. On an assembled J-lock, the spring is located around the smaller diameter section of the J-lock pin. This length of the J-lock pin is not polished, resulting in it having a rough surface created by the machining operation that reduced the diameter of this section of the pin. As the spring is compressed, it buckles, and it contacts the rough surface of the pin. Friction between the spring coils and the surface of the J-lock pin creates resistance to the spring extending, thus limiting the force available to drive the J-lock pin into full engagement. (Poczynok Report at pp. 46-47.)

17. If there is roughness of the J-lock pin surface, as here, this will likely lead to variability in the spring force engaging the J-lock. Destructive testing on exemplar ladders confirmed surface roughness of the J-lock pin surface. Variability is reflected in the measurements of the spring forces of each J-lock on the artifact ladder. This variability is most likely due to the inconsistent spring forces due to the surface roughness of the J-lock pin surface. The rough surface of the J-lock pin in the area of the spring is a manufacturing defect, as it is created by the turning operation performed on the J-lock pin to reduce its diameter in this area. (Poczynok Report at p. 47.)

18. Wing's manufacturing Drawing No. 50952 contains the specifications for the J-lock pin. Specifically, the drawing requires that the radial surface of the 0.375 inch diameter shaft over which the spring fits "must be smooth and free of cracks." (Wing Drawing No. 50952, "Shaft, Lock Assy Type 1;" Poczynok Report at p. 47.)

19. Wing's Drawing No. 50952 also specifies that the diameter of the J-lock pin where the spring is located must be 0.375 inches, plus or minus .010". A second manufacturing defect was identified by Plaintiffs' spring expert, Mark Hayes ("Hayes"). Specifically, Hayes found that the diameter of the shaft of the J-lock pin on which the spring rides was out of

tolerance on all four of the Wing J-lock exemplars he examined. Hayes found that the shafts on all four J-lock pins had dimensions of less than 0.356". Hayes concludes that the out of tolerance J-lock pin shafts will affect the variability of the spring load output. The effect of the out of tolerance diameter is that the spring will "snake" more before making contact with the J-lock pin, thereby making the load output of the springs more variable. (Rule 26 Report of Mark Hayes, dba Spring Expert ("Hayes Report"), at pp. 4, 11; Poczynok Report at pp. 47-49.)

20. Plaintiffs' engineering expert concludes that either of the manufacturing defects—the failure to provide a surface "smooth and free of cracks" and the out of tolerance diameter of the J-lock pin shaft below 0.375"—contribute to the spring force applied to the J-lock. The insertion force of the spring is lessened by frictional resistance caused by contact of the spring with the rough surface, and also by deformation of the spring permitted by the smaller diameter of the guide shaft. The undersized diameter of the J-lock pin in the area of the spring allows the spring to deflect to a greater degree than it would on a larger shaft required by the manufacturing specifications in Drawing No. 50952. Diminished spring force contributes to false locking of the J-lock, as there is less force pushing the lock through the hole in the extension rail and into full engagement. (Poczynok Report at pp. 47-49; Poczynok Depo. 224:13-227:13; Hayes Report at pp. 4, 11.)

21. Plaintiffs' experts have also identified design defects in Wing's J-locks on the Ladder that cause or contribute to the false lock that caused Plaintiffs' injuries. The first defect is the shape of the end of the J-lock pin that is intended to pass through a hole in the extension rail and into a hole in the base rail, securing the extension to the base. The tip of the pin is only slightly rounded, with a 0.375 radius on the end of a 0.563 inch (design dimension) round shaft. An edge is created where the radius meets the non-tapered shaft. This edge, when forced into contact with the

base hole swage ring, creates the false lock. The almost blunt tip of the J-lock pin does little to guide the pin into the intended location because it is so shallow. The tip of the J-lock pin shaft could have and should have been manufactured with a profile akin to that of a round-nose bullet. The leading area of the tip would be significantly reduced and the sides of the pin tapered to facilitate its insertion through the extension rail hole and into the base rail hole. No edge would be present as is found on the J-lock pins of the artifact and exemplar Alta-One ladders. (Poczynok Report at pp. 42, 48; Poczynok Depo. 159:20-161:9; 162:20-163:8; 164:21-165:2.)

22. Contact between the surface of the J-lock pin and the inside surface of the extension hole create a frictional force that acts opposite to the spring force attempting to insert the J-lock. The magnitude of this opposing force is dependent on the coefficient of friction between the two surfaces in contact. The steel J-lock pin is polished in this area, but the inner surface of the hole is not. Polishing the inner surface of the hole would lower the coefficient of friction and thus the frictional resistance to the spring force. Another modification to the extension rail hole to aid in the insertion of the J-lock pin and reduce the probability of a false lock occurring is to bevel or ramp the inner surface of the extension hole. This would prevent the tip of the J-lock pin from encountering a sharp edge that would interfere with its insertion. (Poczynok Report at pp. 43, 48; Poczynok Depo. 235:18-238:1.)

23. During examination of the Ladder that Armstrong was using when he fell, deformed areas at the top and bottom of each extension rail hole were noted. This deformation was caused by the two tabs stamped into the steel J-lock pin to limit its travel into the hole striking the aluminum rail of the extension. The deformation of the extension rail hole could have been avoided by using an alternative design that employs a shoulder or washer at the location of the tabs. The larger surface of the washer or shoulder face would distribute the load being imparted to the extension rail

over a far greater area. This would prevent the damage seen on the artifact ladder caused by the steel tabs. (Poczynok Report at pp. 44, 48.)

24. When the Little Giant Alta-One ladders being tested false locked, the tip of the J-lock pin rested on the inner lip of the swage ring present around the base rail hole. It was held in place by the J-lock spring, which applied a force pushing the tip into the ring, as well as by the weight of the extension being applied to the top of the J-lock pin through contact of the inside of the extension hole with the top of the pin. This defective condition can be ameliorated by eliminating the swage ring. Alternative methods of attachment such as welding could have and should have been utilized, followed by a grinding operation to smooth the surface and bevel the edge, facilitating J-lock pin insertion and eliminating the very location and geometry where the false lock occurs.

In the artifact ladder retention of the spring on the J-lock pin is accomplished through the use of a washer placed on the spring that sandwiches the spring between the plastic retainer and the washer. The end of the J-lock pin is then pressed, creating a geometry that captures the washer, and thus, the spring. This method of retention results in spring force variability, as the washer can and does rock back and forth on the crushed end of the J-lock pin. The surface of the washer in contact with the spring is not always oriented perpendicular to the long axis of the spring. The spring could and should have been retained on the J-lock pin by flattening the end of the pin so that the washer would remain flat relative to the spring end. (Poczynok Report at pp. 44, 48; Poczynok Depo. 238:3-239:11.)

25. Harold Arthur Wing, the CEO and majority shareholder of Wing, testified at his deposition that the intent of the J-lock design is to have the spring on the lock perform consistently each and every time. (Deposition of Harold Arthur Wing (“Wing Depo.”)

64:23-65:8.) Mr. Wing testified that always tries to do the right thing to make sure its products are safe; and if there was a potential that its ladders may present a hazard, it would want to be responsible and address the hazard. Mr. Wing testified his company always strives to be a “good corporate citizen and provide quality, safe products.” (Wing Depo. 33:17-34:11.) Mr. Wing testified that because his company wants to “build a product that is safe for people to use,” it is constantly looking at how people use its ladders. Mr. Wing could not recall Wing investigating or analyzing the potential for a false locking condition when using its ladders, but he said Wing is “constantly looking at” how people use its products. (Wing Depo. 44:22-46:12.)

26. Mr. Wing testified that it is important to have a uniform spring constant for the J-lock assemblies, which Wing accomplishes by calling out certain design specifications. (Wing Depo. 67:11-18.) Mr. Wing testified that one of the factors that may affect a spring constant is the surface the spring is riding on; and a rougher surface may affect the spring constant. (Wing Depo. 66:18-24.) Mr. Wing testified that Drawing No. 50952 specifies that the radial surface of the J-lock pin over which the spring fits should be “smooth and free of cracks.” (Wing Depo. 81:24-83:4.) Mr. Wing acknowledged that the machining process of “turning down,” or reducing the shaft over which the spring fits, can yield both a smooth surface and a surface with variations. (Wing Depo. 83:13-84:1.) Mr. Wing testified that he is aware that based on surface variations there may be deflection of the spring affecting the spring constant. (Wing Depo. 89:4-16.) He agreed that a smooth surface of the J-lock pin shaft reduces the deflection and therefore will not affect the spring constant to the same degree. He testified that “the smoother the shaft is, the easier it’s going to glide, and the rougher it is, the less smooth it’s going to ride.” (Wing Depo. 89:17-24.) Mr. Wing testified that Wing can manufacture a J-lock

pin with a smooth surface and without the surface variations that were apparent on the exemplars shown to him at his deposition. (Wing Depo. 90:15-22.)

27. Mr. Wing testified that all the dimensions called out on the J-lock drawings are “critical” and must meet the specifications within the amounts of tolerance specified. (Wing Depo. 88:18-89:3.) He testified that forces necessary to pull a J-lock out from the ladder can be variable, depending on the spring constants. He acknowledged that the intent of Wing’s design is to have the spring constant as consistent as possible. (Wing Depo. 89:25-90:7.) Mr. Wing agreed that a false lock condition presents a hazard to the user of the ladder. (Wing Depo. 91:18-24.) Mr. Wing testified that false locks have been reported by customers who purchased Wing’s extension ladders. (Wing Depo. 35:21-36:14;) Mr. Wing testified that false lock claims have gone through Wing’s warranty process. (Wing Depo. 36:15-38:11.)

28. Plaintiffs deposed Ryan Crawford (“Crawford”), Wing’s former vice president of engineering and vice president of operations. Crawford worked for Wing from 2006 through 2014. (Deposition of Ryan Crawford (“Crawford Depo.”) 9:25-10:20.) Crawford testified that Wing conducted testing of its extension ladder J-locks for potential false locking conditions in 2006 or 2007. (Crawford Depo. 18:11-20:3; 23:20-25:17.) Crawford testified the testing was done to make sure the Wing ladders are safe and to make sure they could not have a false lock scenario. (Crawford Depo. 28:25-29:8.) Crawford did not recall that Wing ever tested a scenario under which the lower section of its Little Giant ladder was fully secured by the J-locks, but a false lock occurred on the upper section and an individual was able to climb the lower section without the upper section telescoping. Crawford agreed that if a false lock of the upper section occurs and an individual is able to climb the ladder, the ladder is unsafe. (Crawford Depo. 29:20-31:17.)

29. Crawford testified about the specifications in Wing Drawing 50952 for the surface of the machined portion of the shaft of the J-lock pin over which the spring rides. Crawford identified the only specification for surface condition as Note 1, requiring the surface be “smooth and free of cracks.” (Crawford Depo. 70:25-71:23.) Crawford testified that the surface finish is required to be “smooth” so that the J-lock can properly function as a lock tab system. (Crawford Depo. 72:24-73:8.) Crawford acknowledged that the shaft over which the spring goes on the exemplar J-lock he was shown has some roughness and surface variations. (Crawford Depo. 73:17-75:25.) Crawford testified that the manufacturing process for the J-lock pin involves machining the part on a lathe which can be programmed to reach the correct diameter and a smooth surface without variations. (Crawford Depo. 76:1-22.)

30. Crawford testified that while he was employed by Wing no testing of spring forces of the J-lock assembly was performed. He testified that no engineer looked at the effect of higher spring forces in relation to the greater possibility of a false locking occurring. (Crawford Depo. 98:1-17.)

31. Mr. Wing testified that Wing does not test the J-locks to make sure they conform to specifications and are within tolerances before Wing installs the lock assemblies on its ladders. Mr. Wing testified that all of its testing protocols are performed when the ladders are designed. Once the design process is done, the print is “locked down,” and if parts are built to print, “then they are fine.” (Wing Depo. 58:14-20.) Mr. Wing testified that the only testing of the J-lock component of its ladders prior to “locking down” the technical drawing would have been an inspection to see if it meets the fit and finish of what was designed, and it would have then been incorporated into the finished ladder. (Wing Depo. 61:15-23.) Mr. Wing testified that the company has no documentation of any testing to determine if its J-lock components

conformed to the technical drawings for the component parts prior to the technical drawings being “locked down” and the J-lock incorporated into the final product. (Wing Depo. 61:24-65:7.)

32. Wing uses a Chinese manufacturer to produce its ladders, including the Ladder owned by Armstrong that is the subject of this action. Mr. Wing testified that he set up the factory of its Chinese manufacturer, known as ZCAL, in Suzhou, China. Mr. Wing testified that in 1998 he spent about four months setting up the ZCAL factory to produce the Wing ladders. (Wing Depo. 17:4-19:23.) Mr. Wing testified that since 2003 close to 100% of ZCAL’s production has been the ladders it makes for Wing. (Wing Depo. 19:24-20:8.) Wing sends engineers and other employees from the United States to the ZCAL factory in China on a regular basis, either fulltime or rotating in to observe production of Wing’s ladders. Mr. Wing himself visits the ZCAL factory at least twice a year to watch all of the testing and walk the floor. (Wing Depo. 20:9-21:2.)

33. Wing’s manufacturer, ZCAL, uses a subcontractor in China to manufacture the J-locks, including those on the Ladder that is the subject of this action. Mr. Wing testified that he did not know the identity of the Chinese subcontractor who manufactures the J-locks for ZCAL. He testified that the subcontractor was supplied with technical drawings for the J-locks, and the subcontractor would provide the part to ZCAL as required by the technical drawings. Mr. Wing testified that Wing’s Quality Control staff in China would be provided with the same technical drawings; and all in-bound parts are inspected at the ZCAL factory. (Wing Depo. 68:11-69:6.) The J-locks are delivered on pallets containing 1,000 units. Random sampling is done to determine if tolerances are met using a “go/no go” process. (Wing Depo. 69:7-71:9; 76:2-8.) The individual who performs the QA inspections at the ZCAL factory may be a Wing



employee who is present at the time, or a ZCAL employee who has been trained by Wing to perform in-bound inspections. (Wing Depo. 78:5-15.) Mr. Wing is unaware of any documentation of testing done on the J-lock component parts based on the technical drawings prior to the drawings being “locked down” and the J-lock integrated into the final product. (Wing Depo. 61:15-62:7.)

34. Plaintiffs deposed Scott Patton (“Patton”), Wing’s Director of Quality Control. In his position with Wing, Patton oversees the Quality Department as far as incoming and receiving, testing processes and procedures, and in-process inspections. (Deposition of Scott Patton (“Patton Depo.”) 8:20-24; 10:1-9.) Patton has been to the ZCAL factory in China where the Ladder was manufactured approximately six times to audit and check on its quality control procedures. (Patton Depo. 11:16-12:5.) When Armstrong’s Ladder was manufactured in 2014, the J-locks were made by a third party Chinese supplier to ZCAL. Patton does not know the name of the J-lock supplier and has never been to its facility. Patton believes the supplier would be given a drawing of the J-lock and its components, but he is not involved in the discussions between ZCAL and its J-lock supplier. Patton had no involvement in ZCAL’s selection of its J-lock supplier. (Patton Depo. 16:1-17:11.)

35. Patton agrees that it is important, especially in a ladder assembly with multiple components that must work together, that the component parts must meet specifications and be within tolerances. (Patton Depo. 20:1-16.) The vast majority of Wing’s J-locks are inspected at the ZCAL factory, with a very small number of replacement J-locks inspected by Wing at its Utah headquarters. (Patton Depo. 24:23-25:17.)

36. Patton is familiar with Wing’s Drawing No. 50952 for the J-lock shaft assembly, and in his role as Quality Assurance Director, he is able to interpret the dimensions called out on

the drawing. He confirmed that the shaft of the J-lock pin over which the spring goes must have a dimension of 0.375 inches, plus or minus .010 inch of tolerance. He agrees that anything below 0.365 inches in diameter would be out of tolerance. Patton agrees that the J-lock pin shaft depicted in Drawing No. 50952 is a critical part which makes sure that the extension portion of the ladder is locked and does not telescope down when in use. (Patton Depo. 26:8-27:12.) Patton agrees that the round part of the J bar is a radial surface, and the Note on Drawing No. 50952 requires all .375 inch radial surfaces to be smooth. He agrees that a “smooth” in the note means that the surface should not be rough in its manufactured state. (Patton Depo. 29:18-31:9.)

37. Patton testified that he is unaware of any J-lock pins being out of tolerance. He testified that out of tolerance conditions can be determined by inspecting the pins using calipers or a go/no go gauge, but he has never witnessed ZCAL inspecting the pins. (Patton Depo. 28:9-29:17.) He testified that ZCAL would conduct any inspections of the J-lock pins to determine if they meet acceptable tolerances, and Wing inspectors would not be present for those inspections. (Patton Depo. 27:13-24.)

38. Wing and its Chinese manufacturer, ZCAL, performed and documented a First Article Inspection (“FAI”) of the J-lock assembly components when the J-lock was first produced. (Patton Depo. 34:9-35:3.) The FAI procedures mandate that no part of the J-lock assembly is out of tolerance. (Patton Depo. 48:7-17.) Once a FAI has been performed to make sure the tooling is producing parts according to specifications, subsequent FAI reports are only done when there is a change to the part. (Patton Depo. 69:3-24.)

39. Wing does not disassemble the J-lock assemblies it receives from its supplier to measure the critical tolerances of the pin over which the spring fits unless there was a problem

with function that requires tearing apart the assembly to inspect it closer. (Patton Depo. 50:25-51:23.) Wing performs ANSI testing to make sure the fully assembled ladders perform as required, but Wing does not disassemble the ladder or do any specific testing on the J-locks once the ladders are received by Wing's manufacturer, ZCAL. (Patton Depo. 51:25-52:12.)

40. The only quality assurance process Wing has for determining how the fully assembled J-lock functions is "form, fit and function" testing that is part of its final inspection requirements. That testing involves disengaging each J-lock and moving it to the next rung to make sure it engages. The inspectors repeat that process throughout the ladder to make sure the J-locks can, in fact, secure the ladder when in use. (Patton Depo. 52:14-53:3.) The purpose of the testing is to make sure the J-lock pins insert into the holes in the inner rails. Each test insertion is a one-time engagement into the holes in the ladder rails. (Patton Depo. 53:23-55:19.) Other than the final inspection test to make sure there is a one-time engagement of the J-lock pin into the holes in the ladder, Wing does not do any testing to determine if a J-lock has a tendency to false lock. (Patton Depo. 53:4-16.) Wing does not make any determination as to whether or not given a varying spring constant, the tip of the J-lock pin is more likely to end up on the outside of the swage as opposed to inside the hole. (Patton Depo. 53:18-54:14.) Wing's inspections do not test whether or not repeated uses of the J-lock may have a tendency due to the spring constant varying to cause the J-lock pin to land outside the swage and not go into the hole. (Patton Depo. 54:15-55:8.)

41. When asked how Wing checks the critical dimensions of the J-lock components received from its supplier, Patton testified that the J-lock assemblies are inspected according to the drawings during incoming inspection and receiving to determine overall dimensions, diameters and fit and function. (Patton Depo. 57:1-18.) When performing incoming receiving

and inspection, Wing does not disassemble the J-locks on the ladders to measure the spring and/or the J-lock pin inside the assembly to make sure the components meet the critical dimension tolerances. Wing only measures the diameter of the exposed larger U-shaped portion of the J-lock pin, and does not disassemble the J-lock to measure the critical tolerances of the pin over which the spring fits. (Patton Depo. 57:19-59:1.) Wing performs a “form fit and function” test on a sampling of the J-bar assemblies to see if they work properly, but does not tear apart the J-lock assembly to inspect the dimension of the portion of the pin that contains the spring to make sure it meets the technical drawing specifications. (Patton Depo. 57:9-60:5.)

42. Patton testified that the First Article inspection would “catch” any manufacturing defects on the portion of the J-lock pin inside the assembly before it was assembled into the ladder. (Patton Depo. 58:21-59:5.) He acknowledged that the FAI at ZCAL takes place and is documented at the time the part is first obtained by the supplier when the tooling for the part is first made. He acknowledged that if several years later additional quantities of the part come in, no additional FAI is performed unless there is a change made to the part that requires new tooling. (Patton Depo. 69:9-23.) The only FAI reports Wing has for its ladders were generated the first time the J-lock assemblies were produced, and any time there was a change to a component of the J-lock assembly. The only FAI report Wing has for the J-lock at issue in this case is from 2001 when the tooling for the parts was first created. (Patton Depo. 67:14-70:25.)

43. Wing has a 10-year document retention policy. (Patton Depo. 48:18-49:4.) When asked what inspection records exist at ZCAL to check the critical dimensions of each shipment of J-locks coming from its third part supplier, Patton testified that ZCAL should have the inspection reports. Patton testified that he requested ZCAL’s incoming inspection reports for the J-locks it received in 2013 and 2014, but he did not receive anything from ZCAL. Wing

does not have ZCAL incoming inspection reports that indicate whether the J-lock assemblies produced in 2013 and 2014 conformed to the drawing specifications. Patton did not know whether any documents exist that shows whether the J-lock assemblies and component parts received from the third party supplier in 2013 and 2014 met critical dimensions. (Patton Depo 72:10-73:11.) Patton testified he would expect ZCAL to have an inspection record if a J-lock pin were out of tolerance. He testified he requested ZCAL provide any such reports, but received only one inspection report from 2018. (Patton Depo. 80:23-82:1.)

44. Patton's understanding of a false lock is one that's not fully engaged, which he described as when the pin is not fully engaged in the receiving portion of the inner section of the ladder. (Patton Depo. 44:16-45:1.) Patton is unaware of any tests done by Wing to determine the propensity of the J-lock assembly to false lock. (Patton Depo. 45:2-5.) He testified that to his knowledge, Wing has never tested or evaluated the propensity of its J-lock system to false lock. He has never witnessed a false locking of a J-lock assembly on a Wing ladder and he does not know if it can happen. He acknowledged that if Wing had ever seen a false lock happen, it would test the propensity of its J-lock system to false lock. (Patton Depo. 46:15-47:20.) Patton was unaware of the testing of false locking conditions Crawford performed in 2006 or 2007, or any steps taken by Wing to take apart its ladders to measure or look at the critical dimensions of the J-lock components. (Patton Depo. 60:6-14.)

### **C. ARGUMENT AND AUTHORITIES**

45. The purpose of discovery is to seek the truth, so disputes may be decided by what the facts reveal, not by what facts are concealed. *Axelson, Inc. v. McIlhany*, 798 S.W.2d 550, 555 (Tex. 1990). Absent a limiting court order:

Parties may obtain discovery regarding any nonprivileged matter that is relevant to any party's claim or defense and proportional to the needs of the case,

considering the importance of the issues at stake in the action, the amount in controversy, the party's relative access to relevant information, the parties' resources, the importance of the discovery in resolving the issues, and whether the burden or expense of the proposed discovery outweighs its likely benefit.

FED. R. CIV. P. 26(b)(1). A party may serve on any other party a request within the scope of Rule 26(b) to produce to the requesting party any designated documents or electronically stored information in reasonably usable form. TEX. R. CIV. P. 34(a). Further, a party may move to compel discovery so long as the moving party has in good faith conferred or attempted to confer with the person or party failing to respond to the discovery without court action. FED. R. CIV. P. 37(a)(1).

46. Texas Civil Practice & Remedies Code § 41.0115 permits discovery of evidence of a defendant's net worth upon motion and hearing on the issue showing "substantial likelihood of success on the merits of a claim for exemplary damages." Accordingly, so long as Plaintiffs can establish a prima facie case for gross negligence warranting exemplary damages, net worth discovery is proper under § 41.0115.

47. Gross negligence includes both a subjective and objective element. *See* TEX. PRAC. & REM. CODE § 41.001(11); *U-Haul Intern, Inc. v. Waldrip*, 380 S.W.3d 118, 137-38 (Tex. 2012). The objective element requires that when viewed objectively from the actor's standpoint, the alleged act or omission involved an extreme degree of risk, considering the probability and magnitude of potential harm to others. *U-Haul*, 380 S.W.3d at 137-38. The subjective element requires that the actor had an actual, subjective awareness of the risk involved, but nevertheless proceed with conscious indifference to the rights, safety or welfare of others. TEX. PRAC. & REM. CODE § 41.001(11)(B); *Turner v. Franklin*, 325 S.W.3d 771, 784 (Tex. App.—Dallas 2010, pet. denied) ("Gross negligence does not require proof that the defendant intended or tried to harm the plaintiff; it requires proof that the defendant was

subjectively aware of the risk involved and chose to proceed in conscious indifference to the rights, welfare, and safety of others.”). Under the first element, “extreme risk” does not denote a remote possibility of injury or even a high probability of minor harm, but rather the likelihood of serious injury to others. See *Universal Serv. Co. v. Ung*, 904 S.W.2d 638, 641 (Tex. 1995); *U-Haul*, 380 S.W.3d at 138. Under the second element, “[i]n examining proof of the subjective component, courts focus on the defendant’s state of mind, examining whether the defendant knew about the peril caused by his conduct but acting in a way that demonstrates he did not care about the consequences to others.” *Reeder v. Wood County Energy, LLC*, 395 S.W.3d 789, 796 (Tex. 2012, opinion supplemented on reh’g (Mar. 29, 2013)).

48. The evidence establishes that Wing was aware of the potential for serious injury to users of its ladders in the event of a false locking of its J-lock system. While Wing was aware of the potential for false locking of an extension ladder, it failed to adequately test and analyze the potential for a false locking of the J-locks used on the Ladder owned by Armstrong. Wing acknowledges that it never tested the potential for a false locking of the upper extension that would allow the ladder to be set up, and then telescope when the user climbed onto the upper extension. The potential for a fall and the risk of serious injury to a user who is on the upper extension of the ladder when it telescopes is obvious, yet Wing did nothing to insure that scenario would not occur with its ladders.

49. Wing acknowledges that the components of its J-lock assemblies are critical to the performance of the J-locks. Wing also acknowledges that the dimensions and surface finishes specified on the technical drawings for its J-locks are critical to performance and safety. Despite this knowledge, the evidence shows that Wing incorporated into its extension ladders J-locks with components that did not meet the required dimensions and did not have the required

smooth surfaces.

50. Wing admits that in order for its J-locks to perform correctly and to prevent false locking conditions, the spring constant on its J-lock must be as consistent as possible. Wing acknowledges that the spring constant may be adversely impacted by a rough surface of the J-lock pin on which the spring rides. Wing also acknowledges that the correct dimension of the J-lock pin shaft is critical to maintaining the spring constant to ensure the spring will not buckle and will properly insert the J-lock pin into the holes in the ladder rails. Despite this knowledge, the evidence shows that Wing's ladders incorporate J-lock pins that are out of tolerance, are narrower than the required dimensions, and have rough surfaces instead of the smooth, crack-free surfaces required by the technical drawings. This evidence will support a finding of gross negligence in creating a manufacturing defect that caused the false lock condition that caused Armstrong's injuries.

51. The evidence also establishes that Wing has no effective quality assurance program to insure that its J-locks meet technical specifications and critical dimensions are within allowable tolerances. Wing cannot produce any inspection reports documenting that its Chinese supplier verified that the J-lock components conform to specifications. Wing's manufacturer was able to produce only one inspection report for a J-lock pin. Plaintiffs' experts identified multiple out of tolerance J-lock pins in the exemplar Wing ladders they inspected. In addition, Wing does not disassemble the J-locks it receives from its supplier to measure the J-lock pin dimensions inside the assemblies. Wing's grossly inadequate quality assurance program allowed it to sell Armstrong a ladder with defective J-lock pins, resulting in a false locking that cause Armstrong serious injuries. This evidence is further support for a finding of gross negligence by Wing.



52. Viewed objectively, the evidence supports a finding that Wing sold the Ladder that injured Armstrong in a defective state and failed to ensure that the Ladder was not unsafe for its intended use when used in a reasonably foreseeable manner. The evidence establishes that Wing's conduct involved an extreme degree of risk, considering the probability and magnitude of the potential harm to others, specifically the members of the public like Armstrong who purchased and used the Little Giant Alta-One Ladder. The evidence shows that Wing had actual, subjective awareness of the risk of severe injury and death when it manufactured, marketed and sold the Ladder to Armstrong. The evidence will support a finding that Wing was consciously indifferent to the rights, safety, and welfare of others. Such acts and/or omissions of gross negligence, as the law defines it, were each and all, separately and concurrently, a proximate cause of the incident causing severe and lasting personal injuries to Plaintiffs.

53. Despite its actual subjective awareness of the risks inherent to the Little Giant Alta-One, Wing acted with conscious indifference to the rights, safety, and welfare of the members of the general public. Wing did not take action to correct the defects to the design and/or manufacturing of the Little Giant Alta-One.

54. Based on the above and foregoing, Plaintiffs have demonstrated a substantial likelihood of success on the merits of a claim for Wing's gross negligence.

**D. CONCLUSION**

55. For the above reasons, Plaintiffs pray that this court permit Plaintiffs to conduct discovery pertaining to Defendant Wing's net worth, including propounding written discovery and taking depositions.

Dated: June 22, 2019

Respectfully Submitted,

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**CERTIFICATE OF SERVICE**

The undersigned hereby certifies that a true and exact copy of the foregoing **MEMORANDUM OF POINTS AND AUTHORITIES IN SUPPORT OF PLAINTIFFS' MOTION IN SUPPORT OF AN ORDER TO COMPEL NET WORTH DISCOVERY** was served on the 22nd day of June, 2019 by causing this document to be filed on the CM/ECF system which will provide notice to the following parties and counsel:

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